Steps in Portland Harbor Stormwater Evaluation

5/06

Section 5.3 of the JSCS says, stormwater sediment (i.e., catch basin or line solids) & stormwater discharge (i.e., whole water) sampling may be required at upland sites to characterize & evaluate the stormwater pathway & to determine if source control measures may be required.

Appendix D of the JSCS presents guidance for characterizing catch basin sediments & stormwater (water fraction) at upland sites in PH. However, Appendix D may not be as concise & transparent as could be to be as useful as possible. Here is a distillation of Appendix D & what we expect the PH stormwater evaluation to include:

Step 1- Collect & Document Basic Site Information

-Identify potential contaminant sources to site stormwater

-Understand the site's stormwater system (i.e., drainage basins, collections system, lines, & discharge points)

-Understand current stormwater controls (e.g. Stormwater Pollution Control Plans (SWPCP), BMPs, etc)

Step 2- Select Sample Analytes for Catch Basin Solids Sampling

-Site-specific COI

-Consider ubiquitous PH COIs (PCBs & phthalates)

-Consider other data (e.g., PH sediment data near outfall, NPDES permit parameters, etc)

Step 3- Design & Implement Plan to Sample Catch Basin Solids

-<u>How</u>- Use BES's "Guidance for Sampling Catch Basin Solids" (JSCS Attachment C of Appendix D)

-<u>Where</u>- Use SWPCP or knowledge of site.

-<u>When</u>- 1 or more times if you suspect variability of catch basin solids

Step 4- Screen Catch Basin Solids Against JSCS SLVs

-<u>If catch basin solids are below SLVs</u>, then additional stormwater assessment is not necessary unless you suspect catch basin solids don't reflect the potential contaminant load conveyed by stormwater, because, for instance:

- Catch basin solids are predominantly composed of coarse grain material (no fines)
- Stormwater is suspected to contain appreciable dissolved phase contaminants

-<u>If catch basin solids exceed SLVs</u>, then:

- Consider whether site characterization is complete (i.e., has the source(s) of contamination seen in the catch basin solids been identified)?
- Consider cleanout of catch basins & lines
- Consider designing & implementing BMPs
- Monitor stormwater (i.e., whole water) as described in remaining steps

Step 5- Design & Implement Stormwater Sampling Plan

-Use existing guidance to help develop stormwater sampling plan (e.g., JSCS Attachment D of Appendix D, site's SWPCP)

-Use site information & data from catch basin solid sampling to identify analytes

-The plan should generally include sampling during 4 separate storm events per year

Step 6- Screen Stormwater Against JSCS SLVs

-If stormwater is below SLVs, then additional stormwater assessment is not necessary unless you suspect stormwater samples don't reflect the potential contaminant load conveyed by stormwater

-If stormwater exceeds SLVs, then:

- Consider designing & implementing BMPs
- Consider designing & implementing a contaminant mass loading evaluation to determine if site stormwater source control is needed